

RAUNDS URBAN DISTRICT COUNCIL.

Medical Officer's Annual Report for 1900.

To the Chairman and Members of the Raunds Urban District Council.

GENTLEMEN,

I have the honour of laying before you my Annual Report for 1900, together with Statistical Tables of Births and Deaths, and also Infectious Diseases notified during the year.

It will be seen that the forms for record of statistical data are quite different from those formerly supplied by the Local Government Board. These 4 tables have been substituted at the suggestion of the Incorporated Society of Medical Officers of Health, of which I may say I was elected a Fellow 2 years ago, for Tables A and B formerly in use. In Table I. spaces are given for the insertion of the corresponding figures for the ten previous years for purposes of comparison for Births and Birth Rate, Deaths under 1 year and at all ages, and the data upon which the nett death rate is based. Owing, however, to the change in the constitution of this District, I can only give the statistics required in this table for 3 years.

The area of Raunds Urban District is 4387 acres and the number of houses 876. At the last census the number of houses was 694, so that there is an increase of 182 houses shown. The population in 1891 was 3055, which gives an average of 4.4 persons per house. The estimated population now is 4380, which gives almost exactly an average of 5 persons per house, and 1 person per acre as density of population.

The number of births during the year was 123 registered, as against 109 in 1899 and 115 in 1898. This gives a birth-rate of 28.12 per 1000 per annum. Of the births 63 were males and 60 females.

The deaths from all causes numbered 42, including 19 males and 23 females, this showing the remarkably low death-rate of 9.58 per 1000 as against 8.9 in 1899, which I should say was the lowest ever recorded in Raunds, and 10.97 in 1898, and 19.9 in 1897. As regards age, 10 died under 1 year, 1 under 5, none between 5 and 15 years, 6 between 15 and 25, 15 between 25 and 65, and 10 over 65 years of age. I may mention that 10 died over 70, and of that number 4 were over 80 years, the 3 eldest being 84, 85, and 86, respectively. Only 1 death was registered from infectious disease during the year, namely, a child under 5 years from enteric fever and brain disease.

The infantile mortality, which is calculated on the rate per 1000 of births registered during the year, was 81.3, as against 99 in 1899 and 130.4 in 1898. It may be noticed that during 1899 and 1900 only 1 death from infectious disease occurred for each year and 2 in 1898.

The causes of death according to classification were as follows:—From fever 1, diarrhoea 2, phthisis 9, other tubercular diseases 7, bronchitis 4, pneumonia 2, premature birth 3, heart-disease 2, all other causes 12. It will be seen that during the year phthisis carried off no fewer than 9 victims, this being by far the largest number for many years from that terrible disease. Other tuberculous diseases carried off 7 persons—these diseases including hip-joint disease, tuberculous meningitis, general tuberculosis—which really means general consumption of the whole body—phthisis itself being consumption of the lungs.

Bronchitis and pneumonia accounted for 6 deaths, and I am of opinion that the great prevalence of pulmonary diseases annually is principally due to the dampness of the atmosphere, more especially in winter, and this is probably due to the fact that the greater part of the town lies at a much lower level than that of any part of the surrounding district.

There has not been a single death from Cancer during the year. Influenza made its appearance once more and claimed one victim. The type of the disease was very severe, but the number of cases much smaller than usual. Three rather sudden deaths happened: one of a farm-labourer aged 51 from brain disease, and a farm-labourer aged 73 from paralysis and syncope, the other was that of a gasman about 50, who died from perforation of the bowels. No inquest however was required for any of them.

I am glad to say the infantile mortality of 81.3 is much lower than that of the two preceding years, which were 99 and 130.4 respectively. The cases of infectious disease notified during the year was 37, as against 41 and 45 in 1898-9. The notifications were Scarlatina 1, Erysipelas 2, and Enteric Fever 34, the number of cases of the latter being 32 for 1899. Of the Fever cases, 2 were reported in January, 3 in February, 2 in April, 23 in May, 2 in July, and 2 in September.

On May 15th I reported in detail to the Local Government Board the particulars of an outbreak of Fever which began at the end of April but did not increase much till May. I showed that the area affected was situated round the south end of Grove Street—seven of the first cases actually occurring within 100 yards of the origin of the outbreak of the year before. These cases were in Brook Street, Thorpe Street, Grove Street, Smithfield—the others occurring in the case of children more or less connected with that area. The real cause of the outbreak I was unable to fix definitely. The affected houses were supplied by about 7 different dairies, every one of which was inspected by the Sanitary Inspector, Mr. Yorke, and

most of them by myself as well. They all seemed to be perfectly clean and healthy, as were also the cow-sheds belonging to them. The milk was up to the usual standard. The water, I mentioned in my Report, supplying the houses about the infected area "is always liable to pollution after heavy rains, and these continued outbreaks have been occurring regularly for over 20 years."

I am of opinion that pollution of the water supply is the cause of these outbreaks, and it is well known that in some of the wells the water is so muddy after heavy rains that the people have to allow it to subside before they can use it.

At the request of the Local Government Board I sent a supplementary report on the 1st of June, with a table showing the name, age, sex, domicile, and condition of each case. I showed that since my last Report many things had been done with a view to prevent a further outbreak. 800 notices had been delivered advising the public to boil all well-water and milk before using it; notices were also put on every pump in the town. The Sanitary Inspector saw that all defective drains were rectified; one well was permanently closed up; many bad-smelling manholes were sealed up; dairies and cowsheds again examined; the Town Sewer was flushed with carbolic acid in every part of Raunds; the Raunds brook cleared out from end to end, and 6 samples of water sent for analysis to Mr. West Knights, of Cambridge. The result of the analysis was comparatively favourable, but although the water was not in any case bad enough to be condemned, yet some of the samples contained a fairly high percentage of nitrates and could not be considered pure. No bacteriological examination was made.

Altogether the outbreak lasted over $2\frac{1}{2}$ months, and out of the 34 cases only one died. The type of the disease was all the same, of a very severe nature.

The source of the water supply of the town has undergone no material change since my last Report, and it cannot be called safe or satisfactory.

On May 10th I reported to the Local Government Board (Factory Dept.) a case of Lead Poisoning caused by using Lead Bichromate for the staining of soles. I visited most of the factories and the workshops of the finishers, and advised its discontinuance at once. I also stopped the sale of it as far as lay in my power, as it is a cumulative poison and very dangerous. This I did in my capacity of Certifying Factory Surgeon as well as that of Medical Officer. I am aware of the fact that the shoe manufacturers are much against its use, and that now its use is almost discontinued in Northampton and Leicester.

The New Sewer has now been finished and the defects made good so far as they have been discovered. The connections are being made with as much speed as possible under the circumstances; labour being very scarce, the work goes on slowly. An adequate supply of water for flushing the sewers is almost absolutely necessary before it can be said to be in as good working order as it ought to be, more especially in summer, when the smell from many of the manholes is not only very obnoxious but also very detrimental to the health of the town.

Altogether proper drains have been constructed to 154 houses and connected to the sewer. This does not include the new houses and factories, which are connected as they go on. The sewage is now being dealt with at the outfall works in a satisfactory manner under the supervision of Mr. Yorke, Surveyor.

Scavenging has improved considerably under the management of your own scavengers, and although the pail system is still in vogue, it is certainly carried out in a cleaner manner than it formerly was under contractors; at the same time it is to be hoped that as soon as our new water supply has been accomplished, this system may be abolished and water-closets substituted in the whole town.

For house-refuse zinc ash-bins are being gradually introduced and ash-heaps done away with, and it is to be hoped that in a very short time now the old system of ash-heaps and middens may entirely disappear.

The sanitary condition of slaughter-houses, dairies and cow-sheds in the district is very good.

The factories and workshops both new and old seem to be kept as clean as ever, and all sanitary arrangements connected with them are in order. Almost all the work done by the workmen at home is now done in clean, well-ventilated shops near the house, certainly a great improvement upon the old system of stuffy, small shops inside the house itself, where very often the space for two workers measured only about 6 feet by 6 feet—room only for themselves and their "kit," with no breathing space.

House accommodation for the working-classes so far as it goes is very good. All the new houses are built in accordance with the Bye Laws and could not be better; also the sanitary conditions connected with the old houses are much improved both inside and out. At the same time, on account of the great pressure of work during the past 12 months and now, there is no doubt there is a considerable amount of unavoidable overcrowding, and a great scarcity of dwelling-houses, and it is to be hoped that many more new houses may be constructed soon; and although I have calculated at the rate of 5 persons to each house for the estimated population, yet on account of the many lodgers, married and single, now in Raunds, I have no doubt I have underestimated the population, as will probably be seen when the real census is taken this year.

Although no Isolation Hospital has as yet been built for Raunds, yet everything is done to keep down the spread of infection; all cases being isolated as far as can be done in private houses; plenty of disinfectants used, and the houses at the termination of each case thoroughly disinfected by Mr. Yorke and his men. I am now in communication with the County Medical Officer of Health in connection with this matter and hope that some arrangement may soon be arrived at with neighbouring Councils whereby we may be able to build a joint Isolation Hospital for Raunds and surrounding villages before long.

The sanitary arrangements of both the National and Wesleyan Schools are as good as ever, and there

has been no need to close either of them on account of disease, and so long as they are under the control of Mr. Shelmerdine and Mr. Lee I am sure that proper sanitary conditions must be maintained.

No new acts have been adopted since last year, since we adopted the following :—The Public Healths Act Amendment Act, 1890, part 3 ; Infectious Diseases Prevention Act, 1890 ; and the Bye Laws with respect to Common Lodging Houses, Nuisances, New Streets and Buildings. Slaughter Houses, Offensive Trades, Cleansing of Footways and Pavements, and the Bassford Recreation Grounds.

WATER SUPPLY.—The source of supply is still the same, and as I said before it cannot be considered satisfactory, and I look upon this subject as one of the most important now before the Council as far as the health of the town is concerned ; but although we have not as yet arrived at a satisfactory solution of the question, yet a good deal has been done during the year to bring this matter to a termination, and I have now very good hopes that the experiment about to be instituted soon by our Surveyor may prove successful.

At the beginning of 1900 the Raunds Council entered into an agreement with the Higham Ferrers Water Co. to avail themselves of an option to take water from the Company ; before deciding to take water from the Company however the Council decided to take steps to secure water in this district if possible, and with this end in view the well at Raunds Brickyard belonging to Mr. Love was tested, but with no very satisfactory result, the quantity proving insufficient. It was then decided to test the well on Pasture Lodge Farm, and permission has now been obtained from the owner. The Surveyor has instructions to proceed with the work, and is only holding it in obedience for a few weeks until the days are a little longer. I believe there is good reason for assuming that an adequate supply may be obtained there and the quality of the water is no doubt perfectly satisfactory, so that we have every reason to hope that before long we may have a plentiful supply of pure water in Raunds without this risk of periodical contamination.

The work of the Sanitary Inspector has been carried out in a perfectly satisfactory manner during the year, and among other items I may mention the following summary of work done, namely :—

- 12 Cases of Nuisances arising from Defective Drains;
- 7 Cases of Nuisances arising from Defective Eaves and Spouting ;
- 2 Cases of Pigs Removed from near houses ;
- 9 Cases of Nuisances arising from Accumulation of House Refuse ;
- 13 Cases of Defective Closet Pails seen to ;
- 15 Cases of Nuisances arising from Cesspools ;
- 11 Cases of Cesspools Abolished ;
- 9 Cases of Samples of Water Analysed ;
- 2 Cases of Wells Closed up ;
- 1 Case of Shell fish unfit for food destroyed on order of Magistrate ;
- 1 Licence for New Slaughter House—Old one Condemned ;
- 7 Factories provided with proper Sanitary Conveniences ;
- All Houses thoroughly Disinfected after Fever, &c. ;
- All Slaughter Houses periodically Inspected ;
- 4 New Manure Receptacles constructed for bad ones ;
- 77 Galvanized Ashbins provided in lieu of ashpits ;
- 1 Insanitary W.C. removed and modern one fixed in its place ;
- 72 Water Closets constructed in place of old closets ;
- 154 Proper Drains constructed and connected for old houses ;
- Sewage being dealt with at the outfall in a satisfactory manner.

Altogether with the exception of the outbreak of fever in May, there has been no great amount of illness in the District of a deadly nature, and although the Death Rate is slightly above that of last year yet it is very low at 9.58 for a manufacturing district like this. The sanitary improvements in the District proceed faster than ever they have done before and yet much requires to be done before we are perfect. At the same time with such a low Death Rate and increased Birth Rate with diminished infantile mortality, we have not much cause to complain.

I am, Gentlemen, yours obediently,

W. MACKENZIE, L.R.C.S. & L.R.C.P. Edin. &c.,

Fellow of the Royal Institute of Public Health,

Medical Officer of Health, Raunds Urban District.

Jan. 10th, 1901.

Deaths in Raunds Urban District during the year 1900.

CAUSES OF DEATH.	All ages.	Under 1.	1 and under 5.	5 and under 15.	15 and under 25.	25 and under 65.	65 and upwards.
Enteric Fever	1	....	1				
Diarrhœa	2	2					
Phthisis	9	....	....	....	4	5	
Other tubercular diseases	7	2	....	....	2	3	
Bronchitis	4	2	....	....	....	....	2
Pneumonia	2	....	....	....	....	1	1
Premature Birth	3	3					
Heart Diseases	2	....	....	....	....	2	
All other causes	12	1	....	....	....	4	7
All causes	42	10	1	0	6	15	10

Cases of Infectious Disease notified during the Year, 1900.

NOTIFIABLE DISEASE.	At all ages.	At Ages—Years.					
		Under 1.	1 to 5.	5 to 15.	15 to 25.	25 to 65.	65 and upwards.
Small Pox	0						
Cholera	0						
Diphtheria	0						
Membranous Croup	0						
Erysipelas	2	....	....	....	1	....	1
Scarlet Fever....	1	....	1	....	....	....	....
Typhus Fever	0						
Enteric Fever....	34	...	8	19	6	1	....
Relapsing Fever	0						
Continued Fever	0						
Puerperal Fever	0						
Plague	0						
Totals	37	0	9	19	7	1	1